TN-5308-4/8PoE Series

EN 50155 8-port unmanaged Ethernet switches with 4/8 PoE ports

PoE
Power over Ethernet

> 4 or 8 IEEE 802.3af compliant PoE and Ethernet combo ports
> Provides up to 15.4 watts at 48 VDC per PoE port
> Complies with a portion of EN 50155 specifications
> -40 to 75°C operating temperature range (T models)

EN 50121 CE FC
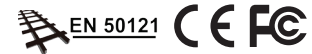
: Introduction

The ToughNet TN-5308-4/8PoE series M12 unmanaged Ethernet switches are designed for industrial applications in harsh environments. The M12 connectors ensure tight, robust connections, and guarantee reliable operation, even for applications that are subject to high vibration and shock. The TN-5308-4/8PoE series Ethernet switches provide 8 Fast Ethernet M12 ports with 4/8 IEEE 802.3af compliant PoE (Power-over-Ethernet) ports. The switches are classified as power source equipment (PSE) and provide up to 15.4 watts of power per port.

The TN-5308-4/8PoE switches can be used to power IEEE 802.3af compliant powered devices (PDs), eliminating the need for additional wiring. The switches support IEEE 802.3/802.3u/802/3x with 10/100M, full/half-duplex, MDI/MDI-X auto-sensing, and provide an economical solution for your industrial Ethernet network. Models with an extended operating temperature range of -40 to 75°C are also available. The TN-5308-4/8 PoE series Ethernet switches comply with a portion of EN 50155 specifications, covering operating temperature, power input voltage, surge, ESD, and vibration, making the switches suitable for a variety of industrial applications.

: Specifications

Technology
Standards:
IEEE 802.3 for 10BaseT
IEEE 802.3u for 100BaseT(X)
IEEE 802.3x for Flow Control
IEEE 802.3af for Power-over-Ethernet
Processing Type: Store and Forward

Interface
M12 Ports: 10/100BaseT(X) auto negotiation speed, F/H duplex mode and auto MDI/MDI-X connection

Power Requirements
Input Voltage: 48 VDC
Operating Voltage: 46 to 50 V
Input Current:
• TN-5308-4PoE: 1.6 A @ 48 VDC
• TN-5308-8PoE: 2.9 A @ 48 VDC
Overload Current Protection: 3 A @ 48 VDC
Connection: M12 connector
Reverse Polarity Protection: 3 A @ 48 VDC

PoE (per port)
Max. Output Power: 15.4 W
Output Voltage: 44 to 48.5 VDC
Max. Output Current: 350 mA
Max. Overload Protection: 400 mA

Physical Characteristics
Housing: Metal
IP Rating: IP40 protection
Dimensions:
TN-5308-4PoE: 60 x 216.6 x 48.7 mm (2.36 x 8.53 x 1.91 in)
TN-5308-8PoE: 80 x 216.6 x 52.9 mm (3.15 x 8.53 x 2.1 in)

Weight:
TN-5308-4PoE: 675 g (1.49 lb)
TN-5308-8PoE: 970 g (2.14 lb)
Installation: Panel mounting, DIN-rail mounting (with optional kit)

Environmental Limits
Operating Temperature:
Standard Models: -25 to 60°C (-13 to 140°F)
Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

Standards and Certifications
Safety: UL/cUL 508, EN 60950-1 (LVD)
EMI: FCC Part 15 Subpart B Class A, EN 55022 Class A
EMS:
IEC 61000-4-2 ESD: Contact 6 kV; Air 8 kV
IEC 61000-4-3 RS: 20 V/m (80 MHz to 1 GHz)
IEC 61000-4-4 EFT: Power 2 kV; Signal 2 kV
IEC 61000-4-5 Surge: Power 2 kV; Signal 2 kV
IEC 61000-4-6 CS: 10 V
IEC 61000-4-8
Rail Traffic: (for panel mounting installations)
EN 50155*, EN 50121-4, EN 45545-2
*Complies with a portion of EN 50155 specifications.
Shock: EN 50155, IEC 61373
Freefall: IEC 60068-2-32
Vibration: EN 50155, IEC 61373
Note: Please check Moxa's website for the most up-to-date certification status.

MTBF (mean time between failures)
Time:
TN-5308-4PoE-48 Series: 252,075 hrs
TN-5308-8PoE-48 Series: 308,392 hrs
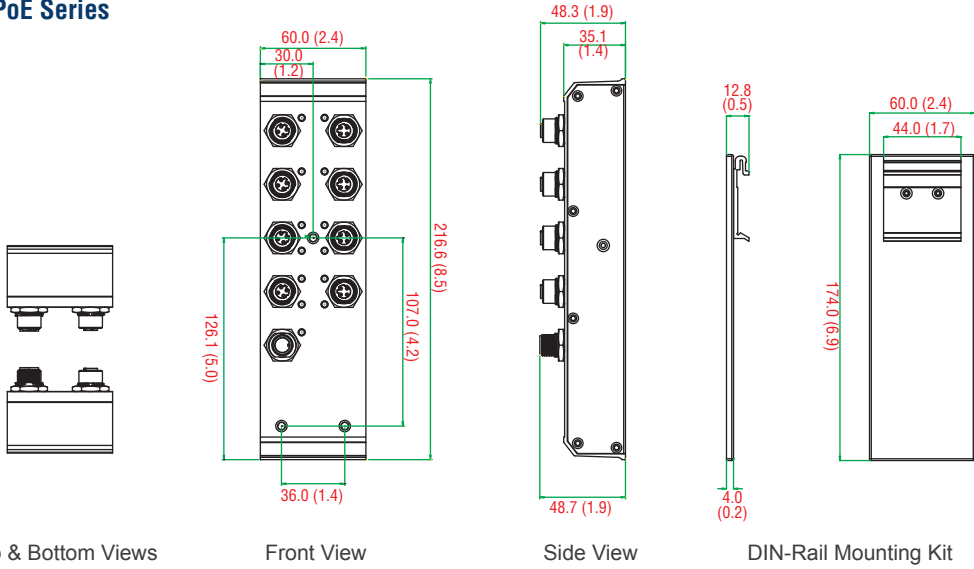**Standard:** Telcordia SR332

Warranty
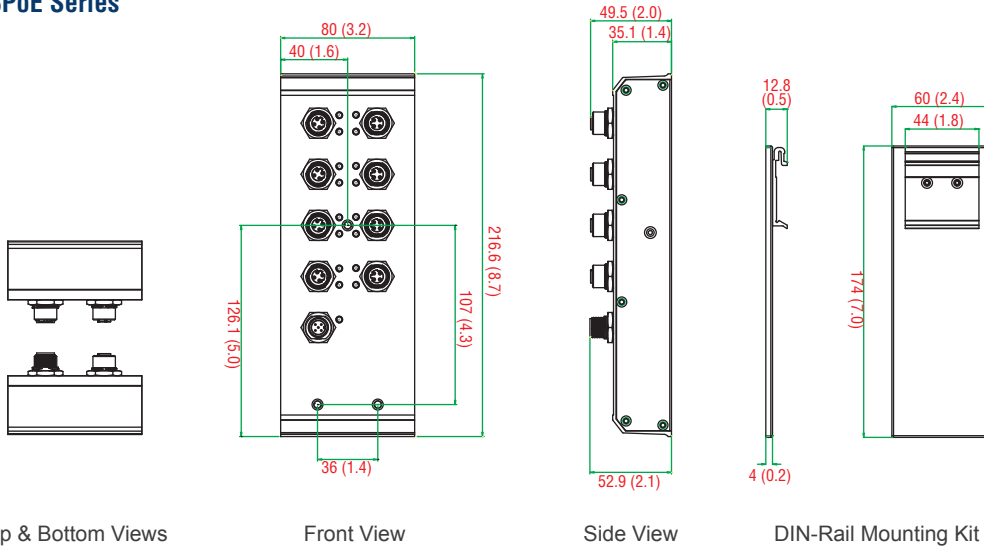**Warranty Period:** 5 years
Details: See www.moxa.com/warranty

Dimensions

Unit: mm (inch)

TN-5308-4PoE Series

Top & Bottom Views   Front View   Side View   DIN-Rail Mounting Kit

TN-5308-8PoE Series

Top & Bottom Views   Front View   Side View   DIN-Rail Mounting Kit

: Ordering Information

Available Models		Port Interface	
Standard Temperature (-25 to 60°C)	Wide Temperature (-40 to 75°C)	PoE, 10/100BaseT(X), M12 connector	10/100BaseT(X), M12 connector
TN-5308-4PoE-48	TN-5308-4PoE-48-T	4	4
TN-5308-8PoE-48	TN-5308-8PoE-48-T	8	0

Note: Conformal coating is available on request.

Package Checklist
- TN-5308-4/8PoE switch
- Hardware installation guide
- Warranty card

Optional Accessories (can be purchased separately)
Power Cords, M12 Connectors, Protective Caps: See the EN 50155 Switch Accessories datasheet for details
DR-75-48/120-48: 75/120 W DIN-rail 48 VDC power supplies

EN 50155 Switch Accessories

: M12/M23 Cords

CBL-M12D(MM4P)/RJ45-100 IP67
1-meter M12-to-RJ45 Cat-5C UTP Ethernet cable with
IP67-rated 4-pin male D-coded M12 connector

CBL-M12(FF5P)/OPEN-100 IP67
1-meter M12-to-5-pin power cable with IP67-rated
5-pin female A-coded M12 connector

CBL-M23(FF6P)/Open-BK-100 IP67
1-meter M23-to-6-pin power cable with
IP67-rated 6-pin female M23 connector

CBL-M12XMM8PRJ45-Y-200-IP67
2-meter M12-to-RJ45 Cat-5 UTP Ethernet cable with
IP67-rated 8-pin male X-coded crimp type M12 connector

CBL-M12XMM8P-Y-300-IP67
3-meter M12-to-M12 Cat-5 UTP Ethernet cable with
IP67-rated 8-pin male X-coded crimp type M12 connector

CBL-M12XMM8P-Y-100-IP67
1-meter M12-to-M12 Cat-5 UTP Ethernet cable with
IP67-rated 8-pin male X-coded crimp type M12 connector

: M12 Connectors

M12D-4P-IP68
Field-installable M12 D-coded screw-in
sensor connector, 4-pin male, IP68-rated

M12A-5P-IP68
Field-installable M12 A-coded screw-in
sensor connector, 5-pin female, IP68-rated
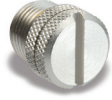
M12X-8PMM-IP67-HTG
Field-installable M12 X-coded crimp type,
slim design connector, 8-pin male, IP67-rated

MOXA®

M12 IP67 Protective Caps

A-CAP-M12F-M
Metal cap for M12 female connector

A-CAP-M12M-M
Metal cap for M12 male connector

M23 Connectors

A-PLG-WPM23-01
M23 cable connector, 6-pin female, crimp type